

DEC 29 2003
 PATENT & TRADEMARK OFFICE

PTO/SB-019 (04-03)

SUBSTITUTION FOR FORM 1445B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	09/307,223	
			Filing Date	May 7, 1999	
			First Named Inventor	Vamer, Judith A.	
			Art Unit	1642	
			Examiner Name	S. Ungar	
			Attorney Docket Number	021935-000110US	
Sheet	1	of	1		

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
Su	BC	Guo, Neng-hua, et al., "Thrombospondin 1 and Type I Repeat Peptides of Thrombospondin 1 Specifically Induce Apoptosis of Endothelial Cells", <i>Cancer Res.</i> (1997), 57: 742-742		
	BD	Kim, Semi, et al., "Regulation of Angiogenesis In Vivo by Ligation of Integrin $\alpha 5 \beta 1$ with the Central Cell-Binding Domain of Fibronectin", <i>American Journal of Pathology</i> , (2000), 156(4): 1345-1362		
	BE	Ruoslahti, Erkki, "Integrin Signaling and Matrix Assembly", <i>Tumor Biology</i> , (1996) 17(2):117-124		
	BG	Scott, Glynnis, et al., "Fibronectin Suppresses Apoptosis in Normal Human Melanocytes Through an Integrin-Dependent Mechanism", <i>J. Invest. Dermatol.</i> , (1997) 108:147-153		
	BH	Yano, Yoshiko, et al., "Cyclic Strain Induces Reorganization of Integrin $\alpha 5 \beta 1$ and $\alpha 6 \beta 1$ in Human Vein Endothelial Cells", <i>Journal of Cellular Biochemistry</i> , (1997) 64(3):505-513		
		Zhang, Zhuohua, et al., "The $\alpha 5 \beta 1$ Integrin supports survival of cells on fibronectin and up-regulates Bcl-2 expression", <i>Proc. Natl. Acad. Sci USA</i> , (1998) 95:6161-6165		
	BI			
	BJ			
	BK			
	BL			
	BM			

Examiner Signature	<i>[Signature]</i>	Date Considered	10/28/04
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB08A (10-95)

Approved for use through 10/31/99. CMB 0851-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO				Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/307,223		
				Filing Date	May 7, 1999		
				First Named Inventor	Judith A. Vamer		
				Group Art Unit	NYA		
				Examiner Name	NYA		
Sheet	1	of	6	Attorney Docket Number	6827-PA11		
U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.†	U.S. Patent Document Number ‡ Kind Code§ (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
SLL	A1	US5753230		Brooks et al	05-19-98		
	A2	US5766591		Brooks et al.	08-16-98		
	A3	US5627263		Rouslahti et al.	05-06-97		
	A4	US5855866		Thorpe et al	01-05-99		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. †	Office‡	Number§ (if known)	Kind Code¶	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T*
SLL	B1		WO98/14714		LA JOLLA CANCER RESEARCH FOUNDATION	08-01-95	
	B2		WO97/10507		LA JOLLA CANCER RESEARCH FOUNDATION	03-20-97	
	B3		WO98/10795		LA JOLLA CANCER RESEARCH FOUNDATION	03-19-98	
	B4		WO99/13329		LA JOLLA CANCER RESEARCH FOUNDATION	03-18-99	
	B5		EP0906919A2		LA JOLLA CANCER RESEARCH FOUNDATION	04-07-99	
Examiner Signature		Susan G. [Signature]			Date Considered	10/28/04	

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†Unique citation designation number. ‡See attached Kinds of U.S. Patent Documents. §Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ¶For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent documents.

‡Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. *Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1448B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known		
			Application Number	09/307,223	
			Filing Date	May 7, 1999	
			First Named Inventor	Judith A. Varner	
			Group Art Unit	NYA	
			Examiner Name	NYA	
Sheet	2	of	6	Attorney Docket Number	6627-PA11
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ¹
SL	C1	AOTA, S., NOMIZU, M., and Yamada, K.M. 1994. The short amino acid sequence Pro-His-Ser-Arg-Asn in human fibronectin enhances cell-adhesive function. <i>J. Biol. Chem.</i> 269: 24755-24761. ✓			
	C2	ARAP W et al. 1997. Cancer treatment by targeted drug delivery to tumor vasculature in a mouse model. <i>Science</i> 279: 377-380. ✓			
	C3	BADER, B.L. et al. 1998. Extensive vasculogenesis, angiogenesis, and organogenesis precede lethality in mice lacking all α_v integrins. <i>Cell</i> 95: 507-519. ✓			
	C4	BLOCH, W. et al. 1997. $\beta 1$ integrin is essential for teratoma growth and angiogenesis. <i>J. Cell Biol.</i> 139: 285-278. ✓			
	C5	BLYSTONE, S.D. et al. 1994. Integrin $\alpha v \beta 3$ differentially regulates adhesive and phagocytic functions of the fibronectin receptor $\alpha 5 \beta 1$. <i>J. Cell Biol.</i> 127: 1129-1137. ✓			
	C6	BROOKS, P.C. et al. 1994a. Requirement of vascular integrin alpha v beta 3 for angiogenesis. <i>Science</i> 264: 569-571. ✓			
	C7	BROOKS, P.C. et al. 1994b. Integrin alpha v beta 3 antagonists promote tumor regression by inducing apoptosis of angiogenic blood vessels. <i>Cell</i> 79:1157-1164. ✓			
	C8	BROOKS, P.C., et al. 1995. Anti-integrin alpha v beta 3 blocks human breast cancer growth and angiogenesis in human skin. <i>J. Clin. Invest.</i> 98: 1815-1822. ✓			
Examiner	Date Considered			10/28/04	

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		Group Art Unit	NYA		
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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			?
See	C9	CARRON, C.P. et al. 1998. A peptidomimetic antagonist of the integrin $\alpha v \beta 3$ inhibits Leydig cell tumor growth and development of hypercalcemia of malignancy. Cancer Res. 58: 1930-1955. ✓			
	C10	CASTELLANI, P. et al. 1994. The fibronectin isoform containing the ED-B oncofetal domain: a marker of angiogenesis. Int. J. Cancer 59: 812-818. ✓			
	C11	CHARO, IF et al. 1990. The vitronectin receptor $\alpha v \beta 3$ binds fibronectin and acts in concert with $\alpha 5 \beta 1$ in promoting cellular attachment and spreading on fibronectin. J. Cell Biol. 111: 2795-800. ✓			
	C12	CHRISTOFIDOU-SOLOMIDOU, M. et al. 1997. Expression and function of endothelial cell αv integrin receptors in wound-induced human angiogenesis in human skin/SCID mice chimeras. Am. J. Path. 151: 975-983. ✓			
	C13	CLARK, R.A.F. et al. 1982. Blood vessel fibronectin increases in conjunction with endothelial cell proliferation and capillary ingrowth during wound healing. J. Invest. Dermatol. 79: 269-276.			
	C14	CLARK, R.A.F. et al. 1996. Transient functional expression of $\alpha v \beta 3$ on vascular cells during wound repair. Am. J. Path. 148: 1407-1421. ✓			
	C15	COLLO, G. and Pepper, M.S. 1999. Endothelial cell integrin $\alpha 5 \beta 1$ expression is modulated by cytokines and during migration in vitro. J. Cell Sci. 112: 569-578. ✓			
	C16	DRAKE, C.J. et al. 1992. Antibodies to $\beta 1$ -integrins cause alterations of aortic vasculogenesis, in vivo. Dev. Dyn. 193: 83-91. ✓			
	C17	DRAKE, C.J. et al. 1995. An antagonist of integrin $\alpha v \beta 3$ prevents maturation of blood vessels during embryonic neovascularization. J. Cell Science 108: 2655-2661. ✓			
	C18	FRIEDLANDER, M. et al. 1995. Definition of two angiogenic pathways by distinct αv integrins. Science 270:1500-1502. ✓			
Examiner				Date Considered	10/28/04

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		Filing Date		May 7, 1999	
		First Named Inventor		Judith A. Varner	
		Group Art Unit		NYA	
Examiner Name		NYA			
Sheet	4	of	6	Attorney Docket Number 6627-PA11	
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
SM	C19	FRIEDLANDER M. et al. 1996. Involvement of integrin $\alpha v \beta 3$ and $\alpha v \beta 5$ in ocular neovascular diseases. Proc. Natl. Acad. Sci. 93: 9784-9789. ✓			
	C20	GEORGE, E. L., et al. 1993. Defects in mesodermal migration and vascular development in fibronectin-deficient mice. Development 119: 1079-1091. ✓			
	C21	GOH, K. L. et al. 1997. Mesodermal defects and cranial neural crest apoptosis in $\alpha 5$ integrin-null embryos. Development 124: 4309-4319. ✓			
	C22	LAN, N. et al. 1998. Distinct signal transduction pathways are utilized during the tube formation and survival phases of in vitro angiogenesis. J. Cell Sci. 111: 3621-3631. ✓			
	C23	KACZMAREK, J. et al. 1994. Distribution of oncofetal fibronectin isoforms in normal hyperplastic and neoplastic human breast tissues. Int. J. Cancer 58: 11-18. ✓			
	C24	KOIVUNEN, E. et al. 1993. Selection of peptides binding to the $\alpha 5 \beta 1$ Integrin from a phage display library. J. Biol. Chem. 268: 20205-20210. ✓			
	C25	KOIVUNEN, E., Wang, B., Ruoslahti, E. 1994. Isolation of a highly specific ligand for the $\alpha 5 \beta 1$ integrin from a phage display library. J. Cell Biol. 124: 373-380. ✓			
	C26	MAGNUSSON, M.K. and Mosher, D.F. 1998. Fibronectin: Structure, assembly, and cardiovascular implications. Arterioscler. Thromb. Vasc. Biol. 18: 1363-1370. ✓			
	C27	NERI, D., Camemolla, B., Nissim, A., Blaza, E., Leprini, A., Quarze, G., Pina, A., Teri, L., Hallin, C., Neri, P., Zardi, L. Winter, G. 1997. Targeting by affinity-matured recombinant antibody fragments of an angiogenesis associated fibronectin isoform. Nature Biotech. 15: 1271-1275. ✓			
	C28	PIERSCHBACHER, M.D., Hayman, EG, and Ruoslahti, E. 1981. Location of the cell-attachment site in fibronectin with monoclonal antibodies and proteolytic fragments of the molecule. Cell 28: 259-67. ✓			
Examiner				Date Considered	0/28/04

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SM	C29	PYTELA, R. et al. 1985. Identification and isolation of a 140 kD cell surface glycoprotein with properties expected of a fibronectin receptor. Cell 40: 191-98. ✓			
	C30	RUOSLAHTI, E. et al. 1981. Alignment of biologically active domains in the fibronectin molecule. J. Biol. Chem. 256:7277-81. ✓			
	C31	SECHLER, J. L. and Schwartzbauer, J.E. 1998 Control of cell cycle progression by fibronectin matrix architecture. J. Biol. Chem. 273: 25533-25536. ✓			
	C32	SENGER, D.R. et al. 1996. Stimulation of endothelial cell migration by vascular permeability factor/vascular endothelial growth factor through cooperative mechanisms involving the alphav beta3 integrin, osteopontin, and thrombin. Am. J. Pathol. 149:1-7. ✓			
	C33	SENGER, D. R. et al. 1997. Angiogenesis promoted by vascular endothelial growth factors: Regulation through $\alpha 1 \beta 1$ and $\alpha 2 \beta 1$ integrins. Proc. Nat'l Acad. Sci. USA 94: 13612-13617. ✓			
	C34	SIMON, K.O. et al. 1997. The $\alpha v \beta 3$ integrin regulates $\alpha 5 \beta 1$ -mediated cell migration toward fibronectin. J. Biol. Chem. 272: 29380-29389. ✓			
	C35	STROMBLAD S., et al. 1996. Suppression of p53 activity and p21WAF1/CIP1 expression by vascular cell integrin $\alpha v \beta 3$ during angiogenesis. J Clin Invest 98: 426-433. ✓			
	C36	STROMBLAD, S. and Cheresh, D. A. 1998. Integrins, angiogenesis and vascular cell survival. Chemistry and Biology 3: 881-885. ✓			
	C37	SUEHIRO, K., GAILIT, J. and Plow, E.F. 1997. Fibrinogen is a ligand for integrin $\alpha 5 \beta 1$ on endothelial cells. J. Biol. Chem. 272: 5360-5366. ✓			
	C38	VARNER, J.A. 1997. The role of vascular cell integrin $\alpha v \beta 3$ and $\alpha v \beta 5$ in angiogenesis., <u>Regulation of Angiogenesis</u> (ed. by I.D. Goldberg & E.M. Rosen Birkhauser Verlag, Basel/Switzerland) Exs. 79: 361-390. ✓			
	C39	VARNER, J.A. et al. 1995. Integrin $\alpha 5 \beta 1$ expression negatively regulates cell growth: reversal by attachment to fibronectin. Mol. Biol. Cell 6: 725-740. ✓			
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GU	C40	YANG, J.T., et al. 1993. Embryonic mesodermal defects in $\alpha 5$ integrin-deficient mice. Development 119: 1093-1105.			
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